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COUNTRY ANALYSIS BRIEFS

Japan

Last Updated: November 2005

General Background

Japan's real gross domestic product is expected to grow by 2.3 percent in 2005.

Moderate economic growth has continued in 2005, maintaining the recovery that began in 2003, following a decade of economic stagnation. Japan's real gross domestic product (GDP) rose by 2.6 percent in 2004, and it is projected to rise by 2.3 percent in 2005. The upturn over the last three years partially reflects a surge in export demand, led by exports to China. Domestic consumer spending in Japan also has been strengthening. Unemployment has fallen to 4.3 percent, down from a high of 5.5 percent in early 2003.

Japan's Prime Minister, Junichiro Koizumi, who took office in 2001, has pressed for structural reforms in Japan's economy. In one major change, Koizumi reversed the previous policy of increasing government spending to stimulate the country's economy, and has set a deficit ceiling of 30 trillion yen ($270 billion). Spending on public works projects, which had been funded as part of previous stimulus packages, has been scaled back significantly. The Bank of Japan, however, has adopted a more expansionary monetary policy, which has provided some stimulus to the economy.

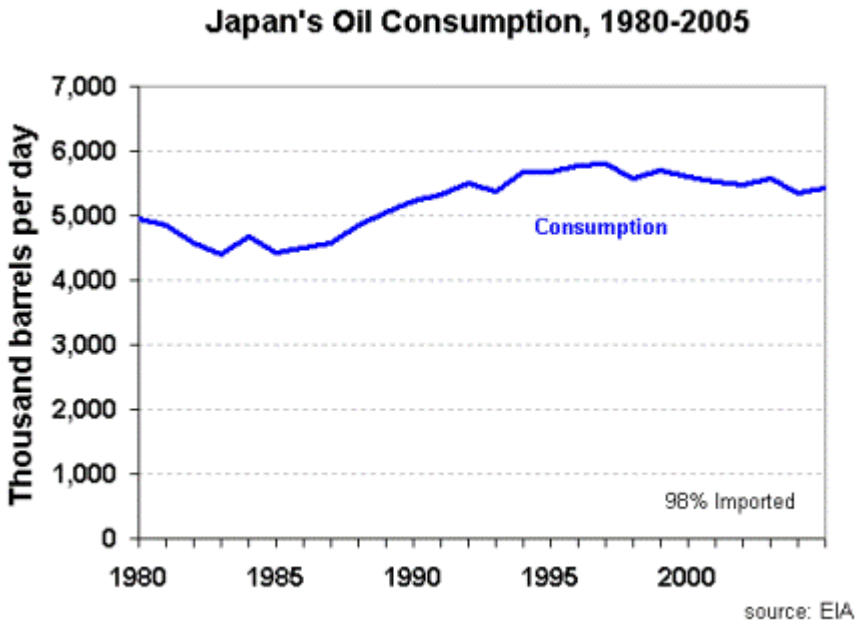
Koizumi's Liberal Democratic Party won a strong majority of seats in the Diet (parliament) in a recent snap election held in September 2005. Koizumi is expected to step down when his current term expires in September 2006.

Japan's economic stagnation since the early 1990s led to a period of consolidation in the country's energy sector. Energy demand has been stable, and Japan's energy industries, particularly the downstream oil sector, underwent a period of downsizing and consolidation. Japan remains important to the world energy sector, though, as one of the major exporters of energy-sector capital equipment, and engineering, construction, and project management services.

Oil

Japan's oil consumption is still well below the peak it reached in 1996.

Japan contains almost no oil reserves of its own (59 million barrels of proven oil reserves), but it is the world's third largest oil consumer (after the United States and China). Japan consumed an estimated 5.35 million barrels per day (bbl/d) of oil in 2004, down from 5.50 million bbl/d in 2003. Part of the decrease in oil consumption was attributable to the recovery of Japan's nuclear power industry from a series of plant shutdowns in 2003, which had caused utilities to maximize use of oil-fired generating capacity. Most (75%-80%) of the oil consumed in Japan comes from OPEC, particularly Persian Gulf countries like the United Arab Emirates, Saudi Arabia, Kuwait, Qatar, and Iran. Japan has worked -- with relatively little success -- to diversify its oil import sources away from the Middle East. Until 1996, when Japan's oil consumption peaked at nearly 5.9 million bbl/d, Japanese oil consumption (and imports) had been growing steadily for years. From 1997 through 2002, Japan's oil consumption declined as its economic slump caused demand by industrial and other users to fall.



Japanese oil companies have been active overseas since 1967, when the government established a state-run company, the Japan National Oil Company (JNOC), to promote overseas oil exploration. Over the years, JNOC amassed numerous bad loans through extensive investment programs and loan guarantees to Japanese exploration firms. A study of JNOC for the Japanese Ministry of Economy Trade and Industry (METI), conducted by the American consulting firm Booz Allen and Hamilton, concluded that Japan's policy of subsidies for oil exploration left firms with little incentive to seek high rates of return on their investments. In November 2001, Prime Minister Koizumi called for the abolishing JNOC, and the Japanese government has been planning its liquidation and considering what role it should have in financing overseas oil projects. The Japanese government began selling off JNOC's assets in early 2005, with refiner Nippon Oil acquiring stakes in several of JNOC's overseas projects, and JNOC's stake in Indonesia Petroleum (Inpex) successfully sold off through a stock offering in late 2004. One of the other major subsidiaries of JNOC, Japan Petroleum Exploration Corporation (Japex), was successfully listed on the Tokyo Stock Exchange in late 2003.

The loss of drilling rights by Japan's Arabian Oil Company (AOC) in the Saudi Arabian portion of the Neutral Zone dealt a major blow to Japan's policy of seeking overseas equity in oil projects. AOC's rights to the concession, which produced 280,000 bbl/d, expired at the end of February 2000. Efforts to negotiate an extension with Saudi authorities failed when Japan refused to commit to investment in development projects desired by the Saudis. Saudi Aramco has taken over operation of the former AOC fields. AOC's concession for the Kuwaiti portion of the Neutral Zone expired in January 2003. In December 2002, however, Kuwait signed a service contract with AOC, similar to those held by other foreign oil companies in Kuwait, allowing the firm to maintain its operations there. While AOC does not hold an equity stake in the field, its offtake from operations there is essentially unchanged, despite the change in contract terms.

Japanese firms have been trying to make up for the loss of the AOC concession in Saudi Arabia by increasing its investment in Iran. Iran announced in November 2000 that it would begin exclusive negotiations with Japex and Indonesia Petroleum (Inpex) for development rights to the huge onshore Azadegan oilfield. Azadegan has been estimated to contain 6 billion barrels of recoverable reserves. The consortium submitted a preliminary development plan for Azadegan in mid-2001, and a binding contract for the project was concluded between the Japanese firms and the National Iranian Oil Company (NIOC) in February 2004.

Apart from its interests in the Persian Gulf, Japanese firms also have been seeking equity stakes in the Caspian Sea region. In July 1998, Mitsui purchased a 15% share, along with Azerbaijan's State Oil Company, of concessions in the Caspian Sea's Kur Dashi oil field. Oil reserves in the contract area are estimated at 500 million-1 billion barrels. In February 1999, JNOC announced that it would help finance the oil development project, the first since it revealed its major financial difficulties in June 1998. The Kur Dashi oil field is important to Japan's strategic goal of reducing its dependence on Middle Eastern oil imports. In December 1998, four other Japanese companies (Japex, Teikoku Oil Co., Inpex, and Itochu Corporation) signed a deal to purchase a different field (Atashgyakh-Mugandeniz-Yanan Tava) in the Caspian. Inpex purchased a 7% stake in Kazakhstan's offshore Kashagan field in the Caspian Sea in 2000.

Another possible source for Japanese oil imports, which has recently received increased attention, is the Russian Far East. Japan has been promoting a proposed pipeline from oilfields near Anagarsk in Siberia to an export terminal on the Pacific coast at Nakhodka. An alternate proposed route would transport the oil from Anagarsk to Daqing in China, connecting to China's existing crude oil pipeline network. A Russian export terminal on the Pacific is an appealing idea to Japan, since it could reduce Japan's dependence on imports from the Persian Gulf. As of late 2005, Russia has committed to build a pipeline to a point near the Russian-Chinese border, from which either pipeline option could be built. While recent public statements by Russian officials seem to give priority to supplying China, it is still unclear which option will eventually be chosen.

Refining/Downstream

As of January 2005, Japan had 4.7 million bbl/d of oil refining capacity at 32 refineries, down from 5.0 million bbl/d as recently as 2001. In recent years, as Japan's petroleum product consumption has stagnated, the country's refining industry has suffered from overcapacity. Japan also began to allow imports of petroleum products in the mid-1990s, putting additional pressure on Japanese refiners to cut costs and become internationally competitive.

In response to these pressures, Japan's refining industry went through a round of consolidations in 1999 and 2000. Nippon Oil and Mitsubishi Oil completed a merger in early 1999, forming Nippon Mitsubishi Oil. Nippon Mitsubishi then acquired Koa Oil from Caltex in September 1999, and in February 2002 merged Koa Oil with another subsidiary, Tohuku Oil. In October 1999, Nippon Mitsubishi announced a strategic alliance with another independent Japanese refiner, Cosmo Oil. The move, while not a merger, allows the two companies to coordinate distribution of refined products and to reduce costs through reduced duplication of some functions. Another similar strategic alliance was formed with Idemitsu Kosan in December 2002. As a result of the agreement, Idemitsu shut down the 80,000-bbl/d Hyogo refinery in April 2003 and its 110,000-bbl/d Okinawa refinery in November 2003.

A second alliance coalesced around Showa Shell, Royal Dutch Shell's Japanese subsidiary, in which it owns a 50% stake. In January 1999, Showa Shell and Japan Energy announced a strategic alliance in petroleum product distribution and crude oil procurement.

The third major player in Japan's refining sector is ExxonMobil, through its Japanese subsidiary, Tonen General Sekiyu. Tonen is the third largest of the alliances in terms of market share.

Fuji Oil, which has a 200,000-bbl/d refinery near Tokyo, was acquired by AOC in January 2003. This created a vertically-integrated, albeit small, company based on AOC's crude oil imports from Kuwait's half of the Neutral Zone.

While many regulatory restrictions on Japanese refiners have been removed over the last few years, the firms are still required to maintain mandatory minimum levels of petroleum stocks, in line with Japan’s commitments as a member of the International Energy Agency (IEA). This requirement permits Japan to maintain a strategic reserve without having to build a government-run storage facility like the U.S. Strategic Petroleum Reserve, but also imposes significant

additional capital costs on refiners operating in Japan.

Natural Gas

Japan and China continue to dispute rights to natural gas development in the East China Sea.

Japan has about 1.4 trillion cubic feet (Tcf) in proven natural gas reserves, with possibly more under the seabed surrounding Japan. Because domestic natural gas production is minimal, about 97% of Japan's natural gas is imported, all in the form of liquefied natural gas (LNG). Unlike oil, demand for natural gas is still rising about 2-3 percent per year. Most of this LNG comes from Southeast Asia and Australia, with 30 percent from Indonesia, 21 percent from Malaysia, 13 percent Australia, and 11 percent from Brunei. The United States also supplies a small quantity of LNG to Japan from a facility in Alaska, which accounts for slightly over 2 percent of Japan's natural gas consumption. Most of the LNG is used either for electric power generation or as feedstock for petrochemical plants.

Three Japanese companies, Tokyo Gas, Osaka Gas, and Toho Gas signed a binding contract in February 2002 for the import of natural gas from Malaysia's MLNG Tiga project, covering deliveries beginning in 2004. The contract is noteworthy in that it includes much more flexible terms for the purchaser than most traditional LNG contracts, which commit the purchaser to a specific volume over 15 to 20 years. The three firms also renewed their baseload contracts with Malaysia's first two LNG export terminals, on terms more flexible than the original contracts. Tokyo Gas and Toho Gas signed a binding contract in October 2001 for LNG purchases from Australia's North West Shelf LNG project, which began in 2004. Three Japanese companies, Mitsubishi, Osaka Gas, and Itochu, signed contracts in June 2004 with Oman's Qalhat LNG for deliveries to begin between 2006 and 2009.

Many of Japan's existing LNG contracts date from the 1970s and 1980s, when terms were less flexible and tied to prices for crude oil. With these contracts coming up for renewal, Japanese buyers have been insisting terms more favorable to the buyer, including volume variances and a weakening in the pricing link to crude oil.

Japanese firms have been considering the possibility of imports, either by pipeline or as LNG, from large natural gas deposits on the Russian island of Sakhalin. ExxonMobil and Shell are backing rival development projects - ExxonMobil a project (Sakhalin-1) which could export natural gas via a pipeline to Japan's main island of Honshu, or alternatively, to northeastern China, and Shell a project (Sakhalin-2) which would feed into an an LNG export terminal with Japanese firms as its primary customers. Shell's Sakhalin-2 project has made faster progress, having signed contracts in the first half of 2003 with both Tokyo Electric Power (TEPCO) and Tokyo Gas, and in March 2004 with Toho Gas. Deliveries are set to begin in early 2007. Tohuku Electric signed a contract in May 2005 for imports of LNG from Sakhalin II, to begin in 2010. ExxonMobil has said it doesn't expect the Japanese market to have sufficient demand for its pipeline project to begin deliveries as originally planned in 2008, and opened negotiations with the Chinese oil and natural gas firm CNPC in 2004, but no binding contract has been concluded for either option.

Japan has objected to Chinese development of natural gas resources in the East China Sea in an area where the two countries Exclusive Economic Zone (EEZ) claims overlap. Japan claims a division of the EEZ on the median line between the countries' coastlines. China claims an EEZ extending to the limits of its continental shelf. The specific development in dispute is China's drilling in the Chunxiao field, which is three miles west of the median line, but which Japan contends may be tapping natural gas reserves which extend past the median line. The Japanese government granted a drilling concession in July 2005 to Teikoku Oil for an area just east of the median line.

Much of Japan's urban area is not served by a natural gas distribution system and the country is considering expansion of its internal natural gas pipeline system. Many analysts cite the absence of an effective natural gas distribution system as a key reason for Japan's high retail energy prices.

City gas consumption has increased by more than 80 percent in the last decade due to a 30 percent increase in natural gas customers and also to a large rise in consumption by industry. Japan's major natural gas companies include Tokyo Gas, Osaka Gas and Chubu Gas. The Japanese government has begun to gradually deregulate the natural gas industry, which is leading to the increased competition.

Coal

Japan ceased

domestic production of coal in 2002.

Japan has small coal reserves of 852 million short tons (Mmst), and the country ceased production in January 2002 with the closure of its last operating coal mine at Kushiro, on the northern island of Hokkaido. Japan's coal mines had been heavily subsidized in recent years, since they were not cost-competitive with other producers.

Japan is by far the world's largest importer of steam coal, mainly for power generation, paper plants, and cement production. Japan also is the world's largest importer of coking coal for its steel industry. Overall, Japan accounts for about 23% of total world coal imports. Sources of imported steam coal are Australia, South Africa, the United States, and China. Japanese coking coal imports come mainly from Australia, Canada, the United States and Russia.

Prices paid by Japanese firms for coal are currently rising, as decreased exports of coal from China put upward pressure on the market. Chinese exports has expanded rapidly in 2002 and early 2003, pushing Asian coal prices down, but increased domestic demand has reversed this trend since the second half of 2003.

Electricity

Japan is the world's third-largest producer of nuclear power.

Japan generated 1,017 billion kilowatthours (Bkwh) of electricity on 237 gigawatts of capacity in 2003. Of Japan's total generation in 2002, about 64% came from thermal (oil, gas, and coal) plants, 23% from nuclear reactors, 10% from hydroelectric dams, and less than 2% from geothermal, solar, and wind.

Due to the country's desire to enhance its energy security, Japan has increased its reliance on nuclear power. The recent past, however, has been challenging for Japan's nuclear power industry. In August 2002, it emerged that maintenance inspection findings at some nuclear reactors owned by Tokyo Electric Power (TEPCO) had not been properly reported to government regulators. This led to the shutdown of all 17 of TEPCO's nuclear reactors over the following several months. Several new reactor projects, including some proposed by other utilities, were put on hold while the issue was resolved. In the short term, this led to increases in Japan's fuel oil and LNG consumption, as generating capacity using fossil fuels was brought online to make up for the shortage of nuclear generating capacity. TEPCO gradually brought all 17 of its nuclear generating units back online, completing the process in August 2004.

Chubu Electric began commercial operation of a fifth reactor at its Hamaoka complex in January 2005. Hamaoka is now Japan's largest-capacity nuclear reactor at 1.4 gigawatts (GW). It was the first new reactor to enter service in Japan since 2002.

By increasing the share of nuclear-generated electricity, Japan is hoping to reduce its carbon dioxide emissions. Japan's current 10-year energy plan, approved in March 2002, calls for the expansion of nuclear generation by about 30% by 2011. This is expected to entail the construction by between 9 and 12 new nuclear power plants, with 17.5 GW in new nuclear generating capacity. The Japanese government also plans to offer subsidies for nuclear power plant construction, to offset expected cost-cutting pressures on utilities due to deregulation which might lead to increased reliance on fossil fuels for electricity generation. Currently, Japan ranks third worldwide in installed nuclear capacity, behind the United States and France. Japan currently has 53 reactors with an installed capacity of 47 GW. Japan's government has indicated that it is still committed to increasing nuclear power's share of generating capacity in the future, but many independent analysts think that the target of a 41% nuclear share of electric power generation by 2011 is unlikely to be achieved. Public opposition to Japan's nuclear power program has increased in reaction to a series of accidents at Japanese nuclear plants, especially the accident at the Tokaimura uranium processing plant in September 1999, the 2002 TEPCO reactor shutdowns, and an August 2004 steam pipe burst at the Mihama nuclear power plant which killed four workers.

In August 1998, the Atomic Energy Commission approved the construction of a new light-water reactor, which will be built in Higashidori in Aomori prefecture in northern Japan. Also, in March 1999, the Japanese Nuclear Safety Commission approved plans for Hokuriku Electric Power Company to build a new nuclear power plant in the central town of Shika, which will be operational by 2006.

To enhance its energy security, Japan's government advocates uranium and plutonium recovery through reprocessing of spent fuel. The Power Reactor and Nuclear Fuel Development Corporation (PNC) operates a reprocessing plant with an annual capacity of 90 tons, but a larger

reprocessing plant, Rokkasho-Mura, with a capacity of 800 tons per year, is under construction, and expected to begin commercial operation in 2007. Reprocessing is expensive and costs can quickly rise with new safety requirements and the development of new technologies. Estimated in 1993 to cost about $8 billion, more recent estimates put the cost of the facility much higher. In the meantime, Japan is negotiating with the French firm COGEMA for the reprocessing of spent nuclear fuel in France. COGEMA may continue to reprocess some spent fuel even after the Rokkasho plant is completed. Japan also is interested in recycling recovered plutonium. In 1999, Japan began -- in two prefectures -- a controversial mixed-oxide utilization plan, which involves burning a highly toxic mix of plutonium and uranium on a commercial scale.

Natural gas, mainly imported as LNG, also is likely to experience considerable growth as a fuel for electricity generation. Renewables, chiefly hydropower and geothermal energy, also are expected to grow, and both coal and nuclear are projected to grow in absolute terms (although nuclear power's share of the market is expected to drop). An accelerating decline is projected for oil-fired generation, which is still more significant in Japan than in most other developed countries. Japan's economic slowdown had resulted in a sharp downturn in capital spending by utilities, which has delayed several new power plant projects, but the recent upturn in the country's economic growth may lead to increased electric power demand.

Japan's electricity prices are by far the highest in the OECD, and Japan has begun a program of reforms designed to make its electric utility sector more efficient. Currently, Japan is served by 10 vertically integrated utilities which each have a specific geographic zone. The Japanese Diet passed a bill in May 1999 which amended the Electric Utilities Industry Law (EUIL) to allow a partial opening to competition. Beginning in March 2000, about 8,000 large industrial and commercial Japanese electric power consumers, comprising roughly one-third of the Japanese power market, have been able to chose their electricity suppliers. Regional utilities currently are obligated to allow power from other suppliers to transit their grids to these large consumers. In April 2005, an additional phase of deregulation took effect, which extended competition to all industrial and commercial entities with peak demand over 50 kilowatts.

While a small percentage of Japan's electricity has been provided by independent power producers (IPPs) since 1995, the new deregulation is expected to generate much more investor interest in developing IPPs, though progress in this direction has been slower than expected due to weak demand.

Profile

Country Overview

Chief of State	Emperor Akihito (since 1/7/89)
Prime Minister	Junichiro Koizumi (since 4/24/01)
Location	Eastern Asia, island chain between the North Pacific Ocean and the Sea of Japan, east of the Korean Peninsula
Population (2005E)	127,417,244
Languages	Japanese
Religion	Shinto and Buddhist (84%), other (16%)
Ethnic Group(s)	Japanese (99%)

Economic Overview

Minister of Economy, Trade, and Industry	Toshihiro Nikai
Currency/Exchange Rate (11/7/2005)	US$1 =118.3 Yen
Inflation Rate (2005E)	-0.3%
Gross Domestic Product (GDP, 2005E)	$4.7 trillion
Real GDP Growth Rate (2005E)	2.5%
Unemployment Rate (August 2005E)	4.3%

Exports (2005E)	$563.3 billion
Exports - Commodities	Transport quipment, motor vehicles, semiconductors, electrical machinery, chemicals
Exports - Partners (2004E)	US 22.7%, China 13.1%, South Korea 7.8%, Taiwan 7.4%, Hong Kong 6.3%
Imports (2005E)	$462.3 billion
Imports - Commodities	Machinery and equipment, fuels, foodstuffs, chemicals, textiles, raw materials
Imports - Partners (2004E)	China 20.7%, US 14%, South Korea 4.9%, Australia 4.3%, Indonesia 4.1%, Saudi Arabia 4.1%, UAE 4%
Current Account Balance (DATE(S))	$162.2 billion

Energy Overview

Proven Oil Reserves (January 1, 2005E)	100 million barrels
Oil Production (2005E)	124.7 thousand barrels per day, of which 4% was crude oil.
Oil Consumption (2005E)	5,431.5 thousand barrels per day
Crude Oil Distillation Capacity (2005E)	4,706.9 thousand barrels per day
Proven Natural Gas Reserves (January 1, 2005E)	1.4 trillion cubic feet
Natural Gas Production (2003E)	0.1 trillion cubic feet
Natural Gas Consumption (2003E)	3,055 billion cubic feet
Recoverable Coal Reserves (2003E)	395.7 million short tons
Coal Production (2003E)	None
Coal Consumption (2003E)	175.6 million short tons
Electricity Installed Capacity (2003E)	241.3 gigawatts
Electricity Production (2003E)	1,017.5 billion kilowatt hours
Electricity Consumption (2003E)	946.3 billion kilowatt hours
Total Energy Consumption (2003E)	22.4 quadrillion Btus*, of which Oil (50%), Coal (18%), Natural Gas (14%), Nuclear (11%), Hydroelectricity (5%), Other Renewables (1%)
Total Per Capita Energy Consumption (2003E)	175.6 million Btus
Energy Intensity (2003E)	6,595.9 Btu per $2000-PPP**

Environmental Overview

Energy-Related Carbon Dixoide Emissions (2003E)	1,205.5 million metric tons, of which Oil (55%), Coal (31%), Natural Gas (14%)
Per-Capita, Energy-Related Carbon Dixoide Emissions (2003E)	9.4 metric tons
Carbon Dioxide Intensity (2003E)	0.4 Metric tons per thousand $2000-PPP**
Environmental Issues	Air pollution from power plant emissions results in acid rain; acidification of lakes and reservoirs degrading water quality and threatening aquatic life; Japan is one of the largest consumers of fish and tropical timber, contributing to the depletion of these resources in Asia and elsewhere
Major Environmental Agreements	Party to: Antarctic-Environmental Protocol, Antarctic-Marine Living Resources, Antarctic Seals, Antarctic Treaty, Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Environmental Modification, Hazardous Wastes,

	Law of the Sea, Marine Dumping, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands, Whaling

Oil and Gas Industry

Organizations	Electric Power Development Co. (EPDC) - a quasi-governmental wholesale power company established in 1952 to help secure stable supplies of electricity. EPDC is scheduled for privatization within the next 5 years. Power Reactor and Nuclear Fuel Development Corp. (PNC, or Donen) -- the government nuclear oversight organization; Japan National Oil Company -- government owned
Major Electric Utilities	Chubu Electric, Chugoku Electric, Hokkaido Electric, Hokuriku Electric, Japan Atomic Power, Kansai Electric, Kyushu Electric, PNC, Shikoku Electric, Tohoku Electric, Tokyo Electric
Major Oil Companies	Arabian Oil (Tokyo), Cosmo Oil, Tonen General Sekiyu, Indonesia Petroleum Ltd., Itochu, Japan Energy, Japan National Oil Corp. (JNOC), Japan Petroleum Exploration., Mitsui Oil Exploration, Nippon Mitsubishi Oil, Showa Shell Sekiyu, Sodeco, Sumitomo, Teikoku Oil
Major Pipelines	Crude oil 52 miles; petroleum products 200 miles; natural gas 1,116 miles
Major Refineries	Negishi (365,750), Ichihara -- Chiba (228,000), Mizushima (190,000), Cosmo -- Chiba (228,000), Showa Yokkaichi (222,000), Tonen Kawasaki (292,950)

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.
**GDP figures from OECD estimates based on purchasing power parity (PPP) exchange rates.

Links

EIA Links

EIA - Country Information on Japan

U.S. Government

CIA World Factbook - Japan
U.S. Department of Energy - Office of Fossil Energy - Japan
U.S. State Department Country Commercial Guide - Japan
U.S. State Department Consular Information Sheet - Japan
U.S. State Department Background Notes on Japan
Library of Congress Country Study on Japan
Commercial Service of the U.S. Embassy in Japan
State of Hawaii Country Profiles

Other Links

Asia-Pacific Economic Cooperation (APEC) Related Websites
Japanese Ministry of Economy, Trade and Industry
Japanese Ministry of Foreign Affairs
Nikkei Net Interactive
Tokyo Electric Power (TEPCO)
"Strategies and Approaches of Japan's Energy Diplomacy" - from Japanese Ministry of Foreign Affairs

Sources

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Global Insight Asia Economic Outlook
Kyodo News Service
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World Gas Intelligence

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